REMARKS

The specification is amended to correct a typographical error at page 15. As the amendment makes the specification consistent with the drawing, at Figure 8, no new matter is added.

Attached hereto is a marked-up version of the changes made to the specification by the current amendment. The attached page is captioned **"Version with markings to show changes made."** In view of the foregoing, this application is now believed to be in condition for formal allowance. Prompt and favorable action is respectfully requested.

Date: August 29, 2001

Respectfully submitted,

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Assuming steady state before time t=0, light sources and sensors are located at locations A' and B' at time t=0. As the code strip and OPC belt proceed in direction C, the respective light sources illuminate sections of the code strip as the marks pass under the respective light source. Light from the light source reflects from in between each mark. The reflected light is detected at the respective light detector. As each light signal registers, the number of marks is counted. The number of marks represents belt movement, which can be used to determine belt velocity with the respective elapsed time.

At time t=t', the location on the code strip formerly at A' is currently at A''. Likewise, the portion of the code strip previously at B' is currently at B''. The distance between A' and A'' is equal to the distance between B' and B'', representative of the elapsed time, t'. While the distance traversed by the belt in the y-direction can be easily determined by the number of marks in the A section of the code strip, this information cannot be used to determine the distance traversed by the belt's non-uniform motion in the x-direction.

The B portion of the code strip contains slanted marks that can be used to determine the non-uniform belt motion. If the belt's motion is uniform, then the sensor in Region B would detect each slanted mark in region B with the same time incremental period as detected in Region A, where the marks are perpendicular to direction C. However, when the belt's motion is non-uniform, the elapsed time between each mark in region B is not equal. In the example displayed in FIG. 8, 32 marks pass under the region B light and sensor, while the corresponding number of marks in Region A during the belt's travel from B' to B" is only 26.

VERSION WITH MARKINGS TO SHOW CHANGES MADE

Assuming steady state before time t=0, light sources and sensors are located at locations A' and B' at time t=0. As the code strip and OPC belt proceed in direction C, the respective light sources illuminate sections of the code strip as the marks pass under the respective light source. Light from the light source reflects from in between each mark. The reflected light is detected at the respective light detector. As each light signal registers, the number of marks is counted. The number of marks represents belt movement, which can be used to determine belt velocity with the respective elapsed time.

At time t=t', the location on the code strip formerly at A' is currently at A''. Likewise, the portion of the code strip previously at B' is currently at B''. The distance between A' and A'' is equal to the distance between B' and B'', representative of the elapsed time, t'. While the distance traversed by the belt in the y-direction can be easily determined by the number of marks in the A section of the code strip, this information cannot be used to determine the distance traversed by the belt's non-uniform motion in the x-direction.

The B portion of the code strip contains slanted marks that can be used to determine the non-uniform belt motion. If the belt's motion is uniform, then the sensor in Region B would detect each slanted mark in region B with the same time incremental period as detected in Region A, where the marks are perpendicular to direction C. However, when the belt's motion is non-uniform, the elapsed time between each mark in region B is not equal. In the example displayed in FIG. 8, 32 marks pass under the region B light and sensor, while the corresponding number of marks in Region A during the belt's travel from B' to B" is only **[15]** **26**.